

We take our water for granted  
until the well runs dry.

**Ben Franklin**

# **OUTLINE OF PRESENTATION**

- **VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES**
- **ISSUES OF PETENWELL AND CASTLE ROCK FLOWAGES**
- **PETENWELL AND CASTLE ROCK STEWARDS (PACRS)**

# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES

- **2<sup>nd</sup> and 5<sup>th</sup> largest lakes in Wisconsin**
- **What brings us to the water??**
- **Family vacations**
- **Weekend get away**
- **Fishing**
- **Swimming**
- **Camping**
- **Sailing**
- **Water skiing**
- **Whatever the reason, lake users are concerned about water quality.**



# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES





# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES





# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



Todd Forcier, Forcier's Guide Service, LLC.



# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



Courtesy of  
Musky Mark's  
Fishing guide



# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES

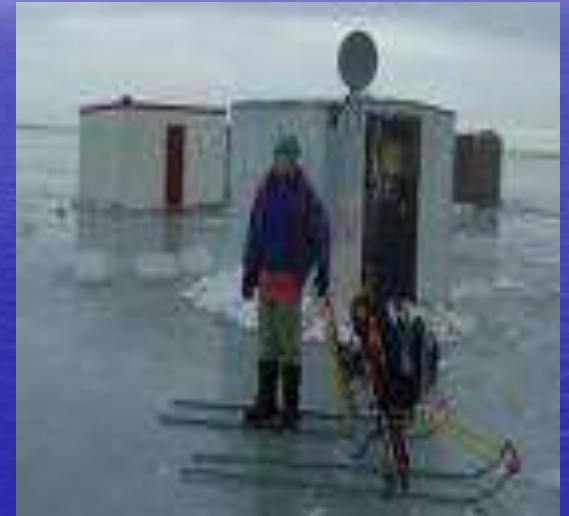






Courtesy of  
Nekoosa Walleye Days  
2010

# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES





# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES











# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



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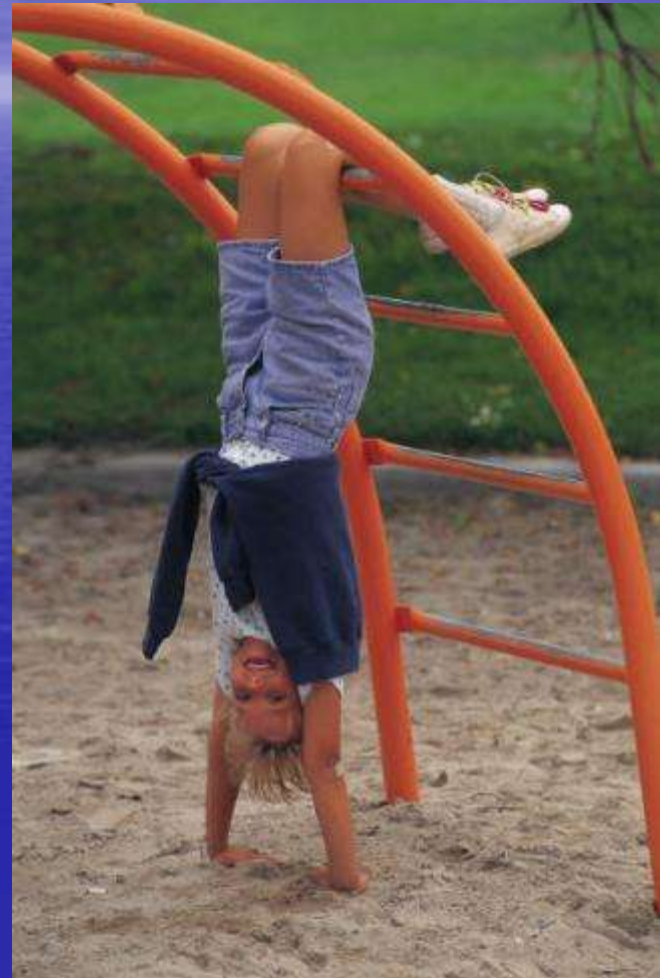




# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES





# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES

- 500 Lake Petenwell, Adams Co
- 200 Castle Rock , Adams Co
- 300 Castle Rock, Juneau Co
- 133 Lake Petenwell, Juneau Co
- 57 Buckhorn State Park
- 1190 Total Campsites

# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES





# VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



# Buckhorn State Park





# Issues of Petenwell and Castle Rock Flowages

- **Impaired water quality**
- **Loss of recreational use**
- **Decline of property value and tax revenue**
- **Negative impact on business – tourism**

# Issues of Petenwell and Castle Rock Flowages

“ What’s this green like paint that floated into the marina last weekend”

Barnum Bay Sailor



# Issues of Petenwell and Castle Rock Flowages



# ISSUES OF ROCK FLOWAGES PETENWELL AND CASTLE





# Issues of Petenwell and Castle Rock Flowages

“What’s all this green?”  
Researcher/Sailor from NOAA





Petenwell Flowage



Castle Rock Flowage





# When can we expect it?

- Blue Green algae
- Blooms can occur when water is warm and nutrient rich
- Can be concentrated due to wind direction
- Usually mid June through late September

# Issues of Petenwell and Castle Rock Flowages

- **Impaired water quality**





# Issues of Petenwell and Castle Rock Flowages



- **Impaired water quality**

# Issues of Petenwell and Castle Rock Flowages

- **Loss of recreational use**





# Issues of Petenwell and Castle Rock Flowages



# Issues of Petenwell and Castle Rock Flowages



- **Decline of property value and tax revenue**



# Issues of Petenwell and Castle Rock Flowages



- **Decline of property value and tax revenue**

# ISSUES OF PETENWELL AND CASTLE ROCK FLOWAGES

Decline of property value and tax revenue





# Issues of Petenwell and Castle Rock Flowages

- **Negative impact on business – tourism**



# Marina Built 1985

- Barnum Bay Marina
- 60 slips
- 100% filled within 2 yrs
- Added 10 slips in 1987







# ISSUES OF PETENWELL AND CASTLE ROCK FLOWAGES



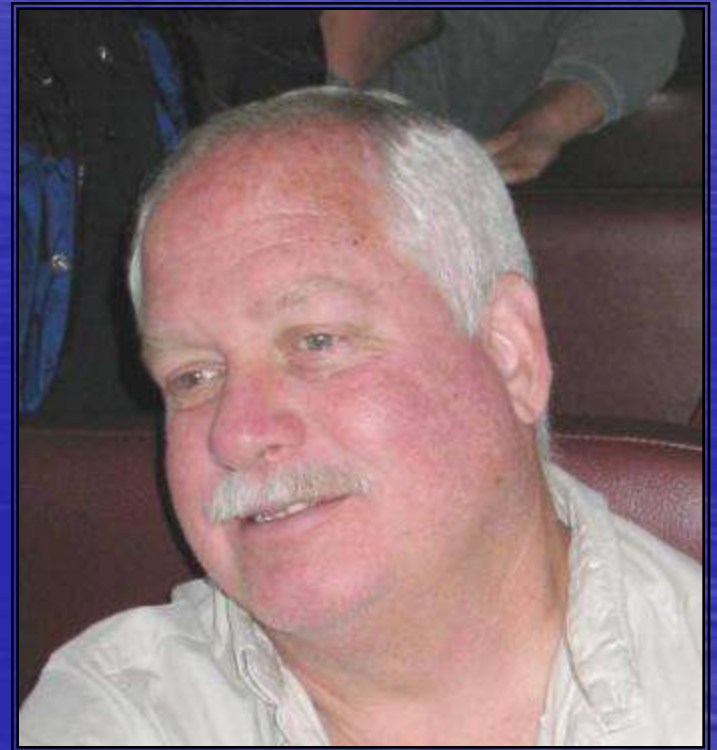


# **Negative impact on business – tourism**

***"There used to be a waiting list to get a slip in my marina.  
Now it's tough to get it half full. "***

***Tom Koren, Owner***

**[Annual Barnum Bay Marina  
boat slip fee = \$800]**



***" People rent out boats months in advance, so when they show up and there's an algae bloom, they're surprised, and they leave. You can't blame them. But \$200 lost for a boat rental, \$50 lost in gas and oil, plus no dinner and drinks afterward...I might be out \$350. It all adds up."***

***Tom Koren***



***"My business could be doubled if the green wasn't here. People keeping boats at my marina used to call up prior to coming out here and ask whether or not an algae bloom was on. Now, they call and ask me how bad the algae is. "***

***Tom Koren, owner***

# Issues of Petenwell and Castle Rock Flowages





# Issues of Petenwell and Castle Rock Flowages





# Issues of Petenwell and Castle Rock Flowages





# Issues of Petenwell and Castle Rock Flowages



# Issues of Petenwell and Castle Rock Flowages





# Issues of Petenwell and Castle Rock Flowages

- Others who have been negatively impacted

# Boaters Comment

"This past weekend, the harbor at Barnum Bay was unbearable. Getting to the gas pump was truly a gut-wrenching experience. The smell was overwhelming, and with a southeast breeze it blew up the shore into the Bay. The lake itself was pretty nasty. Yikes!! And last weekend's algae bloom was the worst many had every seen."

Mark Weiland    August 6, 2007

Racine, Wi



# ISSUES OF PETENWELL AND CASTLE ROCK FLOWAGES





# Petenwell Park





# Vacation Plans Nixed

"I had my Petenwell lake home rented for a week to a family from Canada. When they arrived, they were so disappointed in the smell off the bay and the yucky water, they didn't even unpack"

Disappointed Owner

# Petenwell Sport Shop

“The wonderful aroma was so bad, we couldn’t even open the windows.”

“People at the park were cutting their vacations short do to the stink”

“ People were buying disinfectants and medications because kids were sick”

Sue Garman, owner



“ If these lakes were clean, we would have the best natural recreational area in the state”

Bay Rest Restaurant customer

“People would get out of their car, breath the air, and just get back in their car and leave. It really hurts business”

Bay Rest Employee



# Issues of Petenwell and Castle Rock Flowages

Tom Dorsey, owner of the Bay Rest Resort:

“I’m a taxpayer, and employ 13 people. I’m trying to keep my people employed, but this algae and economy has hurt our business on Petenwell and Castle Rock.”

# Issues of Petenwell and Castle Rock Flowages

"The number two waterway in Wisconsin—26,000 acres of water should somehow get some attention. It just seems to be being ignored—that's the best way that I can explain it."

Tom Dorsey owner Bay Rest



# Issues of Petenwell and Castle Rock Flowages

- "As a business owner, I've had people get a cabin and check in, unload, and then leave after two days because the algae is so bad."

Tom Dorsey

"It was the topic of conversation. The wake behind a boat was nasty."

" A lot of people stayed away because it was so bad"

" I had my cottage rented , they left the first day the lake smelled so bad"

Jeff Patterson, owner Petenwell Pub



# Issues of Petenwell and Castle Rock Flowages

- Don and Donna Hurta, owners of Slip Inn:
  - - “In our back bay, it’s like pea soup. You put your boat in it, and it sticks like paint.”
  - - “If you can clean up Lake Erie, you can clean this up.”
  - - “Our business is down, fishing is down. When customers come up here and rent lodging and a boat, buy gas, and food, and then they go out on the lake and it’s green—what do you tell them?”

# ***Carlson's Rustic Ridge Beach with no algae present on Castle Rock Lake***





***"When the algae blooms are present,  
my revenues are down 25%. One  
less boat per weekend is one less  
table for dinner and drinks."***

***Rick Carlson,*** Owner Carlson  
Rustic Ridge



# Issues of Petenwell and Castle Rock Flowages



**I've seen kids run out of the car, down to the beach, stop, and go back to the car."**

**Rick Carlson, Owner of Rustic Ridge**



# Issues of Petenwell and Castle Rock Flowages

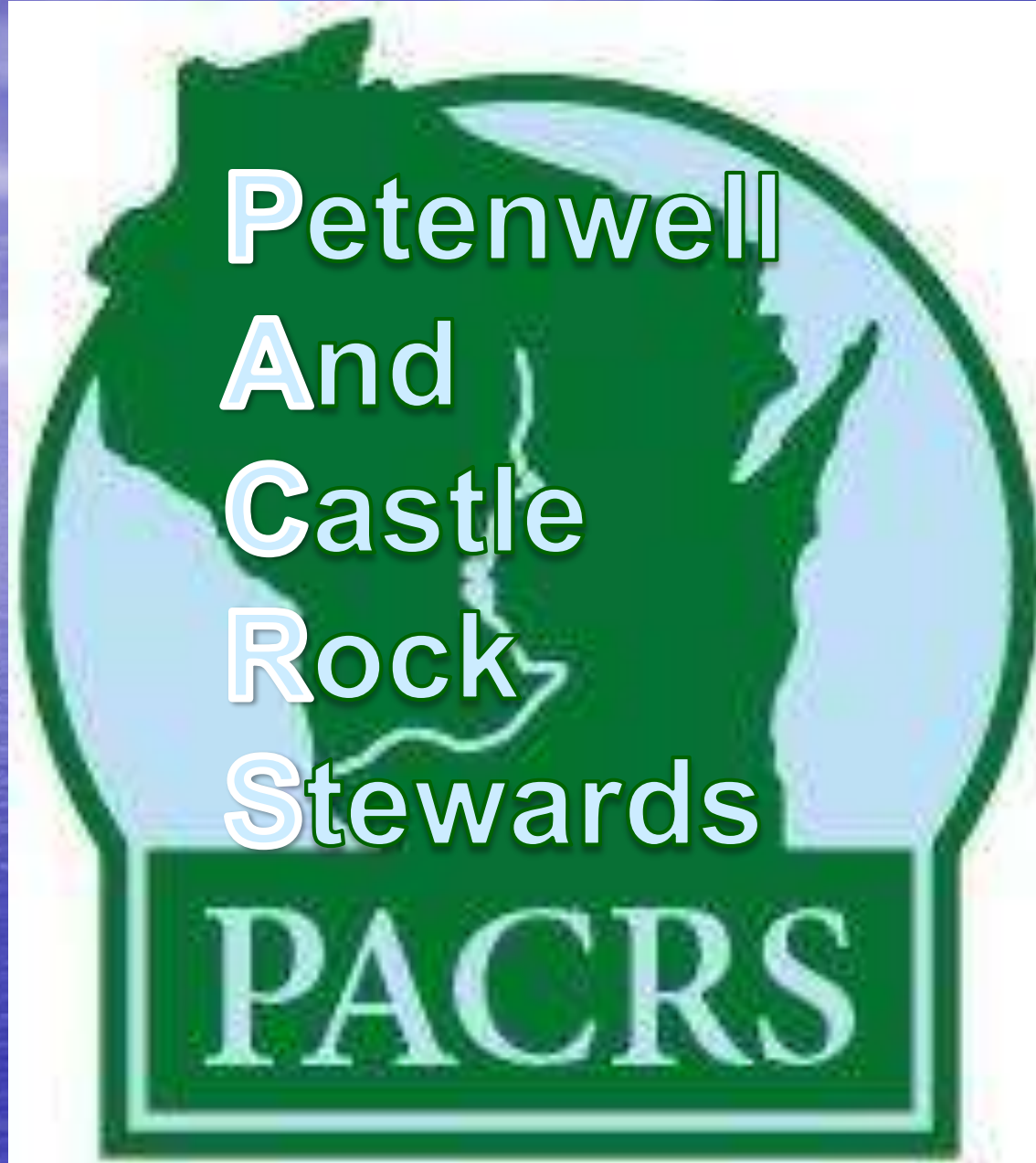
- Greg Van Meter, user of the lakes:
- - I don't know what to say about it—I want to take my grandkids fishing, but I can't. ...We're smarter than this."

# Issues of Petenwell and Castle Rock Flowages

“For those of you who may be unfamiliar with blue-green algae, to put it bluntly, it stinks”

Former Senator Russ Feingold





[www.pacrs.org](http://www.pacrs.org)



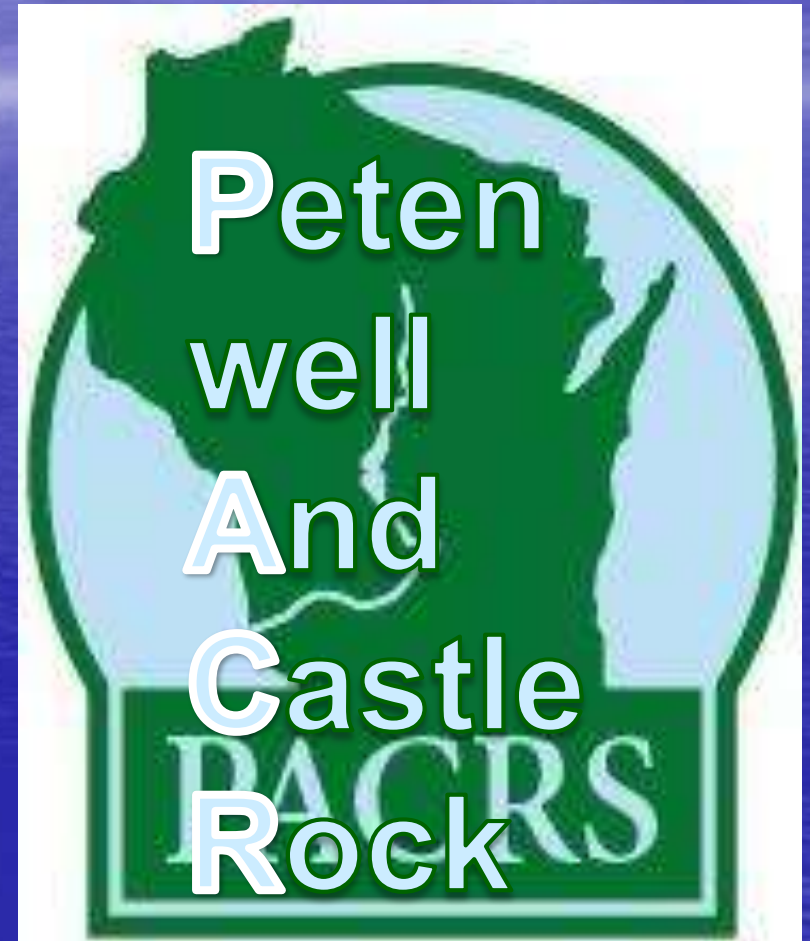
# PETENWELL AND CASTLE ROCK STEWARDS (PACRS)





# PETENWELL AND CASTLE ROCK STEWARDS

- Partners
- Mission Statement
- Membership
- Goals
- 5 year plan
- Accomplishments



Stewar

# Technical Advisors

- Department of Natural Resources
- Land Water Conservation /Juneau & Adams Counties
- River Alliance of Wisconsin
- Wisconsin River Power Company
- Midwest Environmental Advocates
- UW Extension
- UW Stevens Point
- NOAA



# Teamwork between agencies





**RIVER ALLIANCE**  
*of Wisconsin*

*We Save Rivers*

## **WHAT WE DO**

- **Advocate for Wisconsin's rivers and watersheds.**
- Develop the ability of citizens and grassroots groups to organize their passion for rivers.
- Partner with, when appropriate, and challenge, when necessary, the government agencies entrusted with protecting rivers.
- Bring people to rivers to experience their beauty and understand threats to them.

## **WISCONSIN RIVER INITIATIVE**

Advocate and organize to restore Wisconsin's "Mother River":

- Coordinate focused, concerted action to reduce phosphorus pollution.
- Ensure that hydro dams implement river protection obligations of their federal licenses.
- Support the work of local watershed and river friends groups in the Wisconsin River basin.
- Align the efforts of agencies, organizations, and groups in the Lower Wisconsin River basin to prevent the introduction and spread of aquatic invasive species.



# River Alliance has supported (and has been supported by) the PACRS since 2007

- Provided technical assistance, political strategy, advice on forming the organization (nonprofit status, fundraising, bylaws, board development)
- Helped organize events to raise the profile of phosphorus pollution in the Wisconsin River
  - Wisconsin River 101 (summer '07, '09)
  - Pontoons and Politics (Aug '08)
  - Politics of Phosphorus conference (Nov '09)
- Assisted with PACRS outreach efforts (website, content and promotional brochures)



**The Petenwell and Castle  
Rock Stewards (PACRS)  
coordinate and facilitate  
a diverse group of people  
focused on improving the  
water quality and the  
fishery of the Petenwell  
and Castle Rock flowages  
of the Wisconsin River**





**We are now recognized by the state of  
Wisconsin as a non-profit organization.  
We have developed bylaws, including  
membership details.**

**Roc  
k**

# ACCOMPLISHMENTS

- Membership Drive
- 28 Property Owners' Associations
- Local Businesses
- Local Clubs
  - Snowmobile
  - ATV
  - Fishing





# ACCOMPLISHMENT

fundraising

Jars on Bars

Snowmobile Poker Run

Ideas????



# ACCOMPLISHMENTS

- Attended and spoke at public DNR hearings at Wausau, Appleton and Eau Claire to support proposal to reduce phosphorus runoff from agricultural fields.

Results: phosphorus runoff limits established in September 2010.





# ACCOMPLISHMENTS

- Listening Sessions with former Senator Russ Feingold and Representative Tom Petri



# PACRS communicating with Congressman Petri



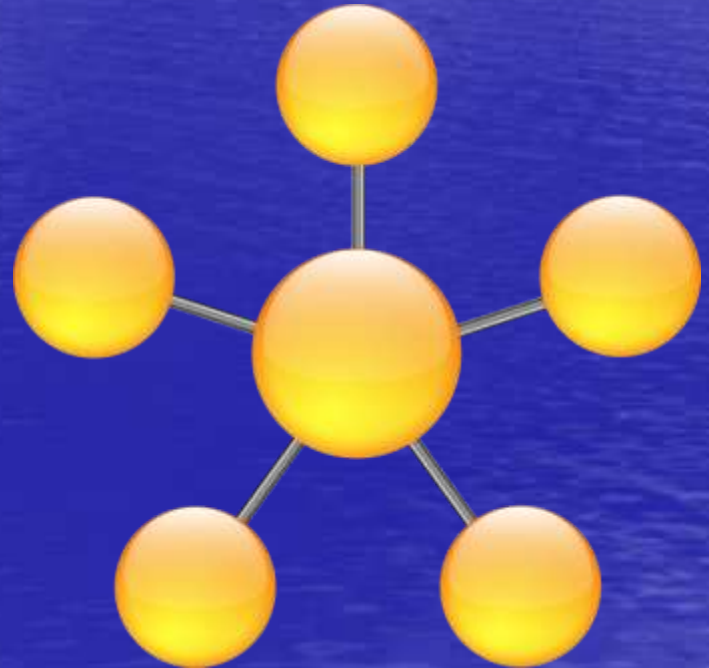


# Local agencies and federal policy makers communicating



# ACCOMPLISHMENTS – Linking Wisconsin River Citizen Groups

- Lake Wisconsin
- Stewards of the Dells
- PACRS
- Friends of Mill Creek
- Big Eau Pleine (BEPCO)





# ACCOMPLISHMENTS - Networking

- Lake Leaders Institute – UW Extension
  - - Representatives from 18 lakes

**WHAT HAPPENS ON THE  
LAND  
AFFECTS OUR LAKES**

# Pontoons and Politics





# Pontoons and Politics



**Politicians in attendance: Former Representative Marlin Schneider, Senator Julie Lassa, Mark Seitz (from Congressman Ron Kind's office)**



# Pontoons and Politics





# PONTOON AND POLITICS



**FEDERAL AND STATE POLICY-MAKERS COMMUNICATING**

# RESULTS OF PONTOON AND POLITICS

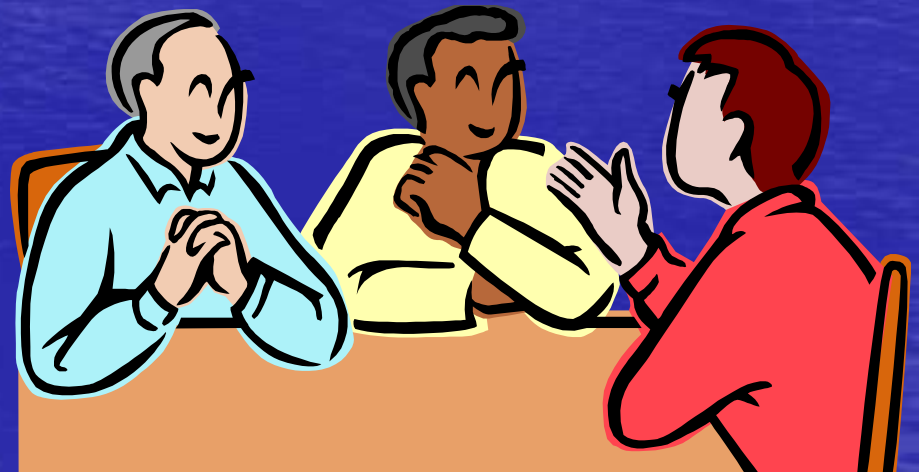
- Funding to WDNR to implement a study for the purpose of establishing Total Maximum Daily Loads for the Upper Wisconsin River.





# ACCOMPLISHMENTS

- Conducted four public sessions to educate the public about water quality and river management issues.



# Wisconsin River 101







# ACCOMPLISHMENTS

- TOURED NEENAH PAPER COMPANY WASTE WATER TREATMENT FACILITY
- LEARNED ABOUT POINT SOURCES AND WHAT EFFORTS ARE TAKEN TO REDUCE PHOSPHORUS



# ACCOMPLISHMENTS

- Along with Friends of Mill Creek, PACRS toured watershed in Portage and Wood Counties.
- Learned current Best Management Practices (BMP) regarding field drainage.



# ACCOMPLISHMENTS



PACRS Tour 400 Cow Dairy Operation



# ACCOMPLISHMENTS

- WATER QUALITY MONITORING FOR TMDL DATA

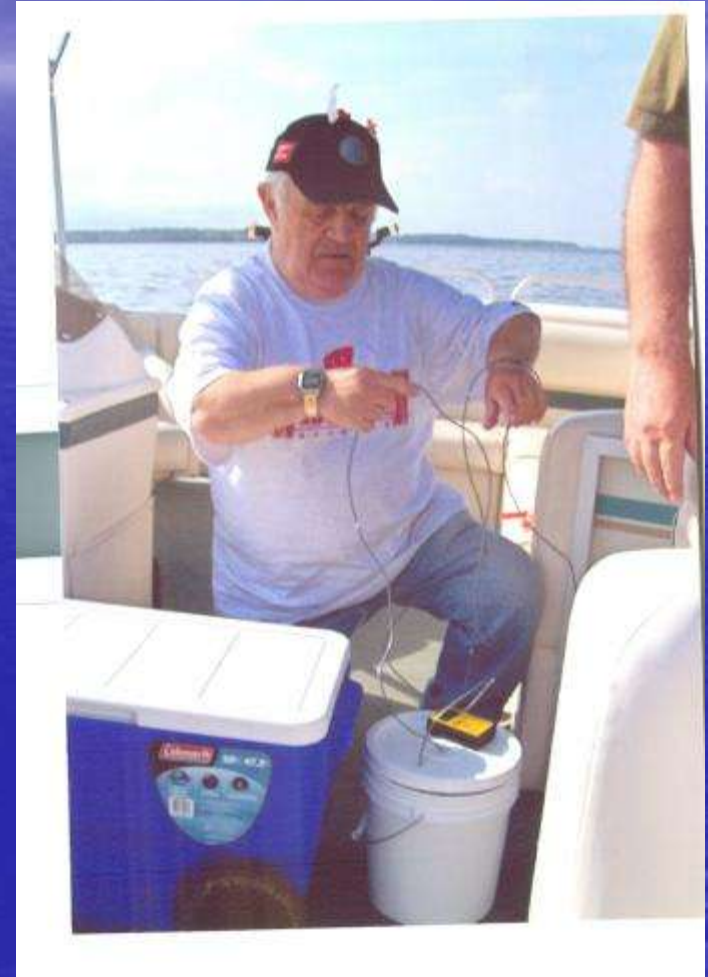
Secchi Disk training provided by Adams County Land & Water Conservation.

- Monitoring efforts May 2010 – Sept.2010  
every two weeks
- 19 volunteers  
22 Lake Petenwell sites  
14 Castle Rock Lake sites  
Collaboration with UWSP



# PACRS - WATER QUALITY MONITORING FOR TMDL DATA

- Secchi Disc readings
- Recorded Data
- Water Temperature
- Secchi Depths
- Air Temperature
- Collected water samples





# PACRS - WATER QUALITY MONITORING FOR TMDL DATA



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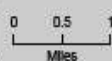




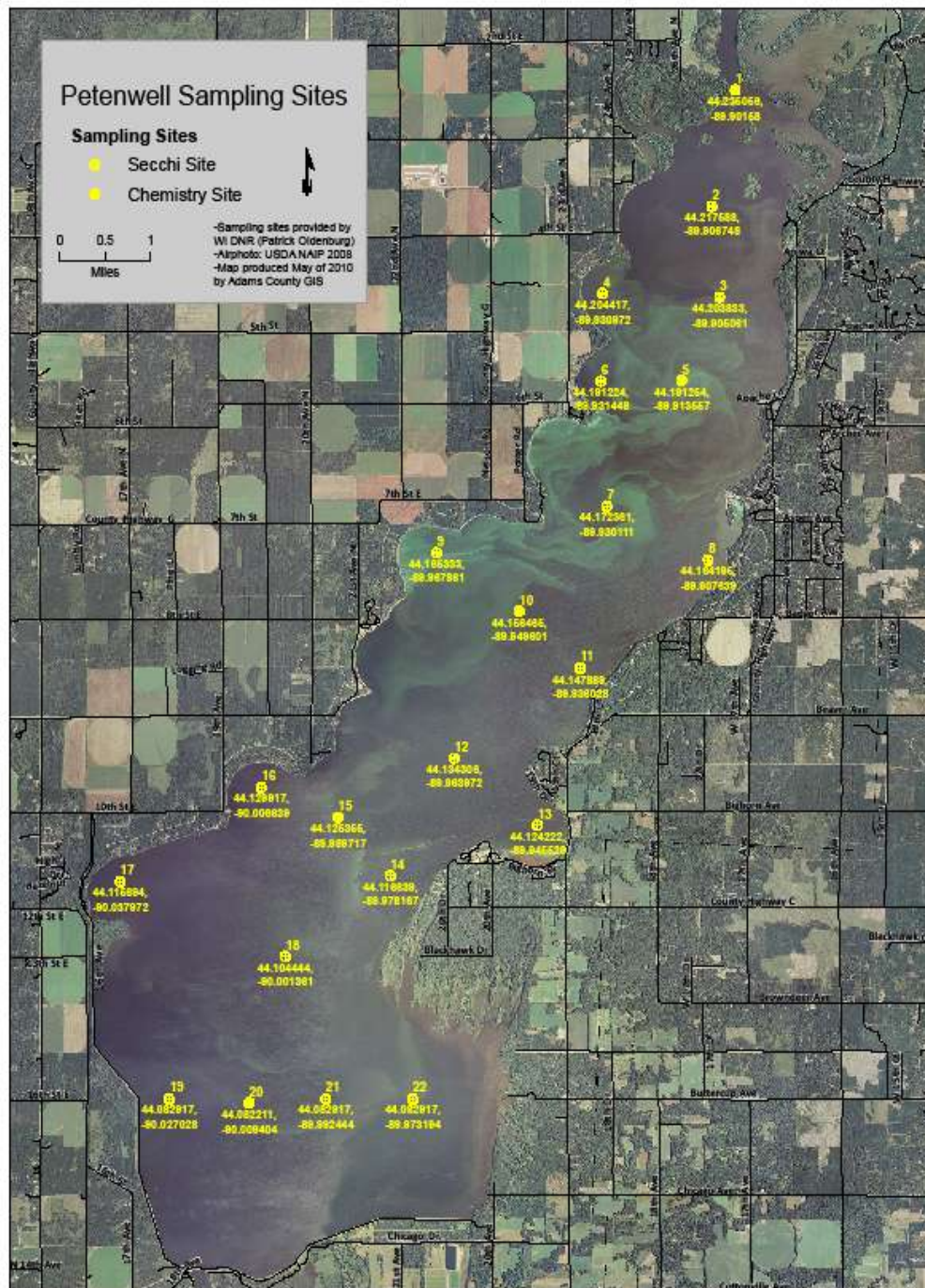
# Petenwell Sampling Sites

## Sampling Sites

- Secchi Site
- Chemistry Site



-Sampling sites provided by  
WI DNR (Patrick Oldenburg)  
-Aerialphoto: USDA NAIP 2008  
-Map produced May of 2010  
by Adams County GIS





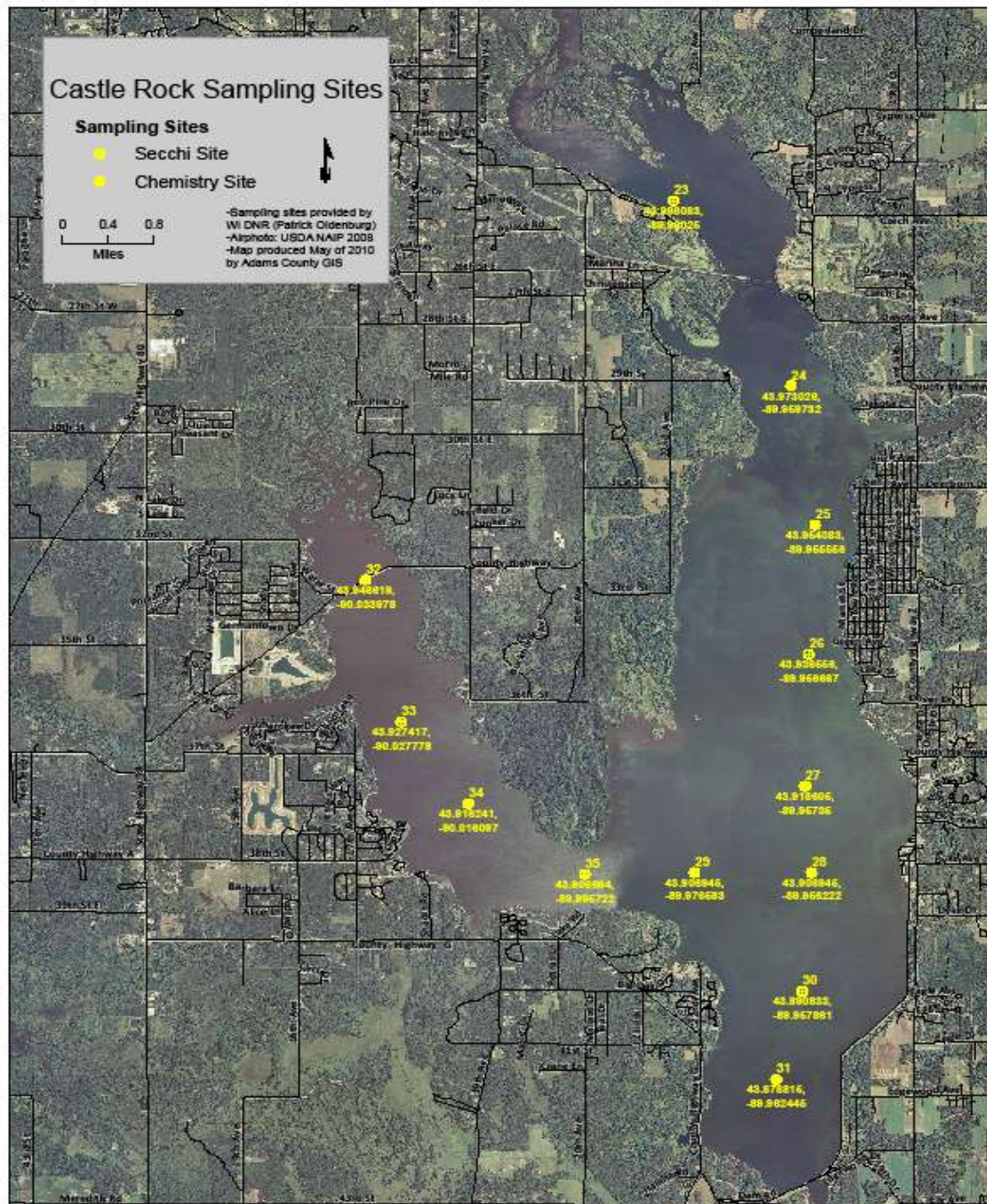
## Castle Rock Sampling Sites

### Sampling Sites

- Secchi Site
- Chemistry Site

0 0.4 0.8  
Miles

-Sampling sites provided by  
WI DNR (Patrick Oldenburg)  
-Airphoto: USDA NAIP 2008  
-Map produced May of 2010  
by Adams County GIS



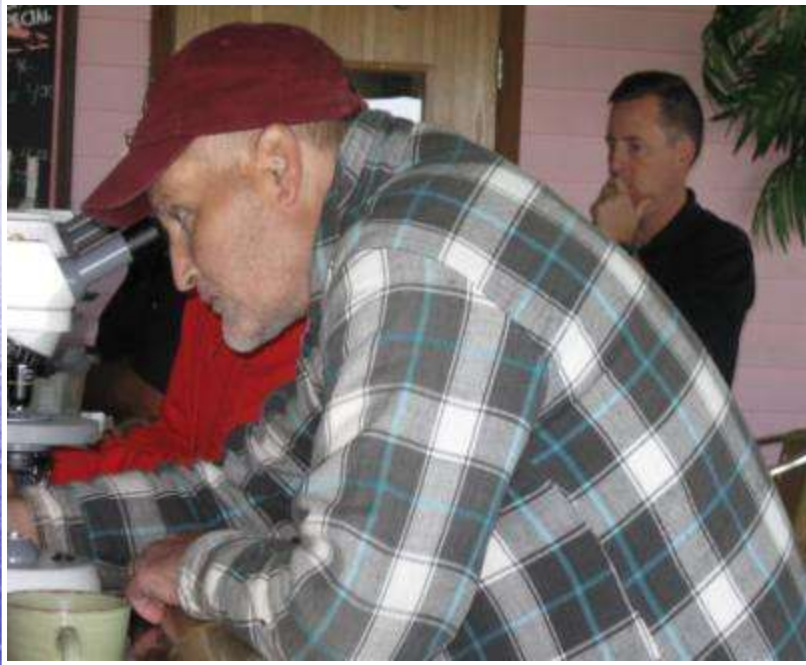
# ACCOMPLISHMENTS

## National Oceanic Atmospheric Administration Algae Sampling and Identification Project





# National Oceanic Atmospheric Administration Algae Sampling and Identification Project



Microscopes and  
training provided by  
NOAA

# National Oceanic Atmospheric Administration Algae Sampling and Identification Project





# National Oceanic Atmospheric Administration Algae Sampling and Identification Project



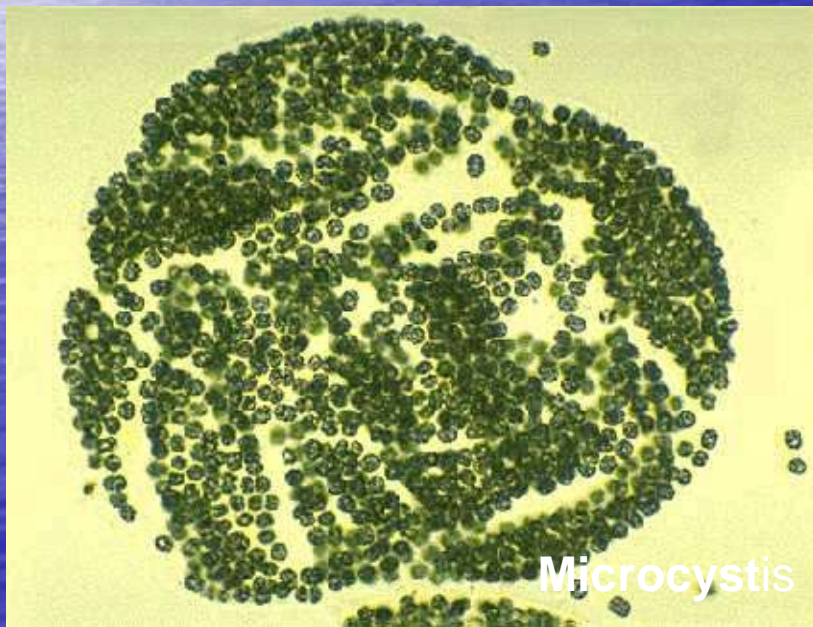
# National Oceanic Atmospheric Administration Algae Sampling and Identification Project





# Potentially Toxic Blue- Green Algae....

Top 3 bacteria found in 2010



# Blue Green Algae Results by PACRS volunteers

- 64 samples collected
- 63 samples contained blue-green algae
- Microsystis 46.9% of samples
- Oscillatoria 32.8 % of sample
- Aphanizomenon 25.0% of samples



# National Oceanic Atmospheric Administration Algae Sampling and Identification Project

- Total volunteer time 343.5 hrs  
8 boats

Thank you volunteers

**Results of Water Quality Monitoring  
for TMDL Data and National  
Oceanic Atmospheric  
Administration Algae Sampling and  
Identification Project can be found  
at display table.**



# Next on the Horizon

## Economic Impact Study



# Economic Impact Study Blue-Green Algae Affect

- Juneau and Adams County partnership.
- Discussions with UW Madison Economics Dept





# PETENWELL AND CASTLE ROCK STEWARDS (PACRS)

“Never doubt that a small group of  
thoughtful committed citizens can change  
the world:

Indeed, it's the only thing that ever has.”

Margaret Mead





# PETENWELL AND CASTLE ROCK STEWARDS (PACRS)

- PACRS BOARD MEMBERS

Barb Baker  
Bruce Carlson  
Scott Bordeaux  
Curtis Frost  
Gerry Ganther  
Rick Georgeson  
Wayne Gjersvig  
Tom Koren  
Carol Lyman  
Ron Lyman  
Gail Rollins  
Chris Turok  
Ron VonHaden



